

REMARKS/ARGUMENTS

The Office Action mailed June 7, 2007, has been received and reviewed. Claims 1 through 10 are currently pending in the application. Claims 1 through 10 stand rejected. Applicant respectfully requests reconsideration of the application as amended herein.

35 U.S.C. § 112 Claim Rejections

Claims 1 through 10 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claims 1-10 stand rejected as not being described with regard to the hydrophilic polymer being used to bind selected components, as opposed to all of the components. Applicant respectfully traverses this rejection, as hereinafter set forth.

The Examiner relies on paragraph [0016] to state that “the binder is used to bind all the components **not** just selected components.” (Office Action at pg. 2). However, paragraph [0016] simply recites that “the water-soluble polymer may be used to provide fast ink absorption and good image quality, to bind the components of the ink-receiving layer 4 together . . .”. It does not recite, as implied, that the polymer is always used to bind all of the components together.

In fact, taken in context as a whole, the specification discusses use of hydrophilic polymers that can be optionally used and bound together with various components, such as nonionic siloxane copolymer surfactants and nonsiloxane surfactants. For example, the “ink-receiving layer 4 can include a siloxane copolymer surfactant and may additionally include at least one hydrophilic or water-soluble polymer, . . . and at least one non-siloxane surfactant.” (para. [0011]). “In addition to the siloxane copolymer surfactant, the ink-receiving layer 4 may also include one or more anionic and/or nonionic surfactant(s).” (para. [0015]). As a further example, the specification recites that the “water-soluble polymer may be used . . . to bind the components of the ink-receiving layer 4 together.” (para. [0016]). All of these exemplary citations illustrate various descriptions and embodiments where various components of the ink-receiving layer 4 may be incorporated and bound to the hydrophilic polymer. In view of the

foregoing, Applicants respectfully submit that the Examiner has impermissibly limited the recitations of the specification to require that all of the ink-receiving layer components be bound together, when in fact, the specification does not so limit the layer in such a way and, further, describes various alternatives, options and embodiments that indicate otherwise. Applicants request that the rejection be withdrawn.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 6,387,473 to Sismondi et al. in View of U.S. Patent No. 6,183,844 to Li

Claims 1 through 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sismondi et al. (U.S. Patent No. 6,387,473) in view of Li (U.S. Patent No. 6,183,844). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, there must be “a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant’s disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

The 35 U.S.C. § 103(a) obviousness rejections of claims 1-10 are improper because the cited references do not teach or suggest all of the claim limitations.

In the Response to Arguments, the Examiner states that “one of the general purposes of the organic polymer is to bind the components together.” (Office Action at pg. 4). However, as

stated in the previous Amendment, Li expressly teaches away from this concept, as discussed below.

Sismondi is relied upon as teaching an ink jet receiving sheet comprising a support and ink receiving layers on the support. The ink receiving layer is said to comprise glossiness improving agents, matting agents, a plasticizer, biocides and conventional additives. The Office Action acknowledges that Sismondi does not disclose the use of siloxane containing surfactant as the non-ionic surfactant. To overcome this deficiency, the Examiner relies on Li to show that a non-ionic surfactant by the tradename Silwet is "equivalent" to non-ionic surfactants by trade names Fluorad and Triton. However, Li discloses use of a surfactant and goes on to state that the "surfactant is considered not to be a part of the film-forming organic polymer" and, thus, is not equivalent of the ink-receiving layer as claimed in the present invention.

More specifically, independent claims 1 and 8 recite that the ink-receiving layer consists of at least one hydrophilic polymer, at least one cross-linking agent, at least one mordant, inorganic particles, at least one nonionic siloxane copolymer surfactant, and at least one nonsiloxane surfactant, wherein the at least one hydrophilic polymer is selected from the group consisting of polyvinyl alcohol, a copolymer of polyvinylalcohol with polyethyleneoxide, a copolymer of polyvinylalcohol with polyacrylic or maleic acid, acetoacetylated polyvinylalcohol, polyethylene oxide, hydroxyethyl cellulose, hydroxypropylmethyl cellulose, poly(N-ethyl-2-oxazoline), casein, starch, agar, carrageenan, cellulose, carboxymethyl cellulose, dextran, pullulan, gelatin, derivatives thereof, and mixtures thereof. In other words, the ink-receiving layer consists of all of these components (including surfactants and organic polymers) within a single ink-receiving layer. Claims 1 and 8 have been amended to further clarify that the at least one hydrophilic polymer, the at least one nonionic siloxane copolymer surfactant, and the at least one nonsiloxane surfactant are bound together. In direct contrast, Li expressly warns that the surfactant is considered not to be a part of the film-forming organic polymer. Thus, Li expressly teaches away from the present invention, since the surfactant is expressly described as not forming part of the organic polymer and is not taught to be bound to a nonsiloxane surfactant. As such, there can be no motivation to combine the two references as it would result in an inoperable print medium. If a proposed modification would render the prior art invention being

modified inoperable for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P. § 2143.01.

Additionally, Li states that “there are many available surfactants and combinations of surfactants which may be used. Examples of suitable surfactants include . . . Fluorad FC-170-C surfactant, . . . Triton X-405 surfactant, Silwet L-77 surfactant . . .” (col. 16, line 64 to col. 17, line 4) (emphasis added). Thus, a clear reading of this particular section of Li cited by the Examiner expressly recites a list of “suitable” and “available” surfactants that may be used in combination with other elements of a coating composition. However, there is no description, suggestion, or teaching in Li stating that Silwet, Fluorad and Triton surfactants are “equivalent” to each other or that they are to be considered equivalent versions of non-ionic surfactants to a person of skill in the art, as suggested in the Office Action.

Claims 2-5, 7, 9, and 10 depend from independent claims 1, 6, and 8. Dependent claims of non-obvious independent claims are also non-obvious. *See, In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, Claim 2-5, 7, 9, and 10 are non-obvious and Applicant requests that the 35 U.S.C. § 103(a) rejection thereof be withdrawn.

In view of the foregoing, Applicant respectfully requests withdrawal of the present obviousness rejection and allowance of claims 1-10.

CONCLUSION

Claims 1-10 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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